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January 19, 2000

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JAN 19 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

BY HAND DELIVERY

Magalie Salas, Esq.  
Federal Communications Commission  
445 12th Street, SW, Room TW-B204  
Washington, DC 20554

Re: WT Docket No. 99-327  
Amendments to Part 1, 2 and 101 of the Commission's Rules  
to License Fixed Services at 24 GHz

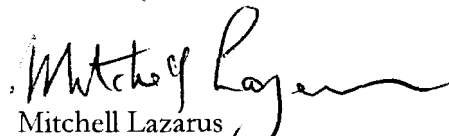
Dear Ms. Salas:

Enclosed please find the original and four copies of the Comments of the Fixed Wireless Communications Coalition in the above referenced matter.

Please date stamp and return the enclosed extra copy of the Comments.

If further information is necessary, please call me at the number above.

Respectfully submitted,



Mitchell Lazarus  
Counsel for the Fixed Wireless Communications Coalition

ML:deb

Enclosures

cc: Service List

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Washington, D.C. 20554

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OFFICE OF THE SECRETARY

In the Matter of )  
 )  
Amendments to Parts 1, 2 and 101 ) WT Docket No. 99-327  
Of the Commission's Rules To )  
License Fixed Services At 24 GHz )

To: The Commission

**COMMENTS OF THE FIXED WIRELESS COMMUNICATIONS COALITION**

The Fixed Wireless Communications Coalition ("FWCC")<sup>1</sup> hereby submits these Comments in the above-captioned proceeding.<sup>2</sup>

The FWCC commends the Commission for advancing its efforts to provide the American public with an additional fixed wireless broadband option at 24 GHz. The Commission correctly recognizes that fixed wireless technologies can provide the public with an easily-installed, cost-effective means of last-mile broadband connectivity. Fixed wireless, while still in its early stages for this application, can offer an additional facilities-based alternative to the incumbent local providers.

The 24 GHz band is one of several means of delivering advanced communications to the public at home, work, schools, hospitals, community

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<sup>1</sup> The FWCC is a coalition of equipment manufacturers and users interested in terrestrial fixed microwave communications. Its membership includes manufacturers of microwave equipment, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. Its membership also includes railroads, the broadcast industry, and their respective associations, telecommunications carriers, landline and wireless, local and interexchange carriers, and others. A list of members is included as Appendix A.

<sup>2</sup> Amendment to Parts 1, 2, and 101 of the Commission's rules to License Fixed Services at 24 GHz, Notice of Proposed Rulemaking in WT Docket No. 99-327, (November 10, 1999) ("24 GHz Notice").

centers, and government facilities. The Commission should adopt 24 GHz rules that reflect its general goals for the deployment of broadband technologies overall: maximizing consumer welfare through fast, ubiquitous, competitive, and open deployment.<sup>3</sup>

The Commission should also make every effort to ensure that any fixed wireless rules it adopts here are, to the greatest extent possible, consistent with those already in place for other services, and with eventual harmonization and simplification of the Fixed Service rules generally. The Commission recognizes the positive impact of harmonizing rules for like services: "Harmonization provides regulatory neutrality to help establish a level playing field across technologies and thereby foster more effective competition. Such a structure would permit reliance on the marketplace to achieve the highest-valued use of the spectrum . . ." <sup>4</sup> The Commission should apply the same rules to similar services wherever possible. This both creates competitive neutrality and facilitates compliance.

#### **I. THE COMMISSION SHOULD GRANT FIXED SERVICES PRIMARY STATUS IN THE 24 GHZ BAND**

The FWCC urges the Commission to retain the primary status of the Fixed Services at 24 GHz. The Commission correctly notes that equipment is not yet available in this band for mobile use. Nor has any party demonstrated that mobile operations are compatible with fixed operations in this (or any other) band. It has been only two years since the Commission first allocated this band

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<sup>3</sup> Remarks by William E. Kennard, Chairman, Federal Communications Commission, at the National Association of Telecommunications Officers and Advisors 19th Annual Conference (Sept. 17, 1999).

to fixed operations. To change the allocation now would needlessly disrupt the potential investment climate for fixed broadband services at 24 GHz.

If the Commission wishes to provide for flexible use of the band, it should consider authorizing mobile operations on a secondary basis by the Fixed Service licensee. Any such authorization should include requirements that automatically limit operation of mobile transmitters to areas outside the reception range of another licensee's potential victim receivers. These provisions would enable licensees to introduce mobile options, when feasible, within the frequency parameters of their existing fixed licenses, and without coordination or interference risks involving a third party.<sup>5</sup>

The FWCC also supports the Commission's tentative decision not to implement a BSS feeder link allocation at 25.05-25.25 GHz. As the Notice reflects, there is still a great discrepancy of views as to the separation needed between fixed operations and feeder link complexes. The Commission need not act precipitously, as there are more than seven years remaining before BSS can effectively use the 24 GHz band.

## **II. THE COMMISSION SHOULD ALLOW LICENSEES ADDITIONAL FLEXIBILITY IN THEIR USE OF 24 GHZ SPECTRUM.**

The FWCC supports the Commission's proposal to create five blocks of 40 MHz spectrum pairs. The Commission should, however, give licensees the flexibility to use these blocks as they see fit.

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<sup>4</sup> Policy Statement, Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, FCC 99-354 at 4 (Nov. 22, 1999).

<sup>5</sup> This flexibility would also make it unnecessary for Fixed Service licensees to burden the Commission with waiver requests or applications for experimental licenses for mobile operations conducted within the framework of their fixed frequencies.

Existing rules may prevent licensees and manufacturers from utilizing frequency blocks most efficiently, as they dictate the directional usage of the spectrum pairs and may inadvertently hinder a licensee's choice of technologies. The FWCC urges the Commission to consider providing 24 GHz licensees with the same spectrum usage flexibility granted to LMDS operators, by modifying Section 101.147(r)(9) of its rules.<sup>6</sup> The table in this rule section designates one group of frequencies (24.25-24.45 GHz) for use at nodal stations and another set (25.05-25.25 GHz) for use at user stations. This restriction has the effect of prohibiting the use of innovative technologies such as Time Division Duplex ("TDD") technology.<sup>7</sup>

The rules also prohibit the winner of multiple 40 MHz blocks in a service area from aggregating 40 MHz blocks into larger ones. Licensees should be permitted to create blocks larger than 40 MHz in either or both directions.<sup>8</sup> For example, the holder of three 40 MHz channel pairs in a service area should be allowed to combine these pairs into a single 240 MHz block for bi-directional use or a 120 MHz block for nodal station communications and a 120 MHz block for

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<sup>6</sup> 47 C.F.R. § 101.147(r)(9).

<sup>7</sup> The directional requirement apparently originated with the 10 GHz DEMS allocation decision. Report and Order, 86 FCC 2d 360 (1981); Notice of Proposed Rulemaking, 44 Fed. Reg. 51257 (1979). That Notice proposed to put user stations in the upper end of the 10.55-10.68 GHz band to "minimize potential interference to possible future passive sensor operations." 10 GHz DEMS Notice at ¶ 24. When the 10 GHz DEMS allocation was adopted, the frequencies were listed in two columns, one column (Channel Group A) for nodal stations and the other (Channel Group B) for user stations. The Commission later allocated spectrum for DEMS at 18 GHz and simply added 18 GHz frequencies to the existing table. Second Report and Order in Docket No. 79-188, 48 Fed. Reg. 50322 (1983). At no time in the 10 GHz or 18 GHz proceedings was the issue of newer access schemes such as TDD technology raised. On the other hand, there were discussions of transmit/receive separation and the cost of filtering, reflecting the needs of Frequency Division Duplex technology. Apart from a question of sharing with proposed passive sensors at 10 GHz, there appears to be no justification for limiting one subband to nodal station use and the other to user stations.

<sup>8</sup> Current rule section 101.147(r) (9)(i) permits a licensee to subdivide a channel pair, but not to aggregate. The Notice proposes to delete this provision.

user station communications, or any other combination. This flexibility is consistent both with the block assignments made to LMDS licensees in the 28 and 31 GHz bands<sup>9</sup> and the Commission's recent Spectrum Policy Statement.<sup>10</sup>

**III. THE COMMISSION SHOULD MAKE EMISSIONS LIMITS MORE CONSISTENT WITH THOSE IN OTHER SERVICES.**

The Commission proposes an emissions limitation rule for 24 GHz different from that applied to other digital services above 15 GHz. The proposed emissions rule also does not account for aggregation of channels. Proposed section 101.111(1)(a)(4) requires attenuation of as much as 80 dB, whereas the rule for other digital services above 15 GHz requires at most 56 dB of attenuation.<sup>11</sup> In addition, the rule for systems above 15 GHz becomes more restrictive as spectrum is aggregated; but the proposed rule, as drafted, would provide for just the opposite. The Commission should carefully consider whether it needs distinct emissions limitation rules for 24 GHz operations.

**IV. THE COMMISSION SHOULD HARMONIZE AND SIMPLIFY ITS FIXED SERVICE RULES.**

The FWCC is planning the submission of a Petition for Rulemaking that will ask the Commission to harmonize and simplify several aspects of the Fixed Service rules. Pending the preparation and consideration of that Petition, the FWCC asks the Commission to promulgate rules for the 24 GHz band that reflect consistency among the fixed wireless services, and to refrain from measures that would impede later harmonization.

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<sup>9</sup> 47 C.F.R. § 101.1005

<sup>10</sup> The Policy Statement seeks to promote new technologies and to give licensees more flexibility in their use of spectrum, with a goal of encouraging greater efficiencies in spectrum use.

<sup>11</sup> 47 C.F.R. § 101.111(a)(2)(ii).

**A. The Commission Should Initiate a Forbearance Proceeding for All Fixed Wireless Operators Irrespective of Frequency Band.**

The Commission asks whether it should exercise Section 10 forbearance from certain common carrier obligations for 24 GHz licensees offering common carrier services.<sup>12</sup> The FWCC believes that fixed broadband licensees should receive the maximum possible forbearance from common carrier regulations. The Commission should not only consider forbearance relief for 24 GHz licensees, however, but should initiate a separate proceeding that applies to all fixed wireless licensees regardless of frequency band.

The fixed wireless industry readily meets the statutory requirements for Section 10 forbearance.<sup>13</sup> Fixed wireless last-mile deployment is still in its early stages, yet has the potential to contribute significantly to facilities-based competition. Its operators must overcome regulatory, technical, and competitive challenges before they can offer services on an equal footing with incumbent providers. In view of the Fixed Service carriers' extraordinarily small share of the broadband telecommunications market, common carrier regulations are hardly necessary to ensure that their practices are just and reasonable, and that they do not unjustly or unreasonably discriminate among customers. The public interest would be served by eliminating, to the greatest extent possible, regulations and reporting requirements that detract from these licensee's efforts to build out and establish alternative broadband networks, regardless of frequency band.

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<sup>12</sup> 24 GHz Notice at ¶ 35.

<sup>13</sup> 47 U.S.C. § 160

**B. The Commission Should Adopt the Same License Terms and Renewal Expectancies for All Fixed Wireless Licenses.**

The FWCC supports a 10-year license term for 24 GHz licenses. This period is consistent with the license terms for LMDS and 39 GHz operators. If the Commission concludes that 24 GHz licenses should exceed 10 years, it should similarly extend the license terms for all other fixed wireless licenses.

The FWCC also supports the Commission's tentative conclusion to adopt a renewal expectancy for 24 GHz licensees that evaluates "substantial service" to the community as the criterion for renewal.<sup>14</sup> This standard provides licensees with significant flexibility in determining how best to implement their business plans, while still providing the Commission with a tangible test for renewal.

The Commission should abandon its alternative proposal to create a numerical renewal standard that would require licensees to transmit to 1/3 of their license area populations by the mid point of their license term and 2/3 by the end of their license term.<sup>15</sup> A numerical coverage requirement is inconsistent with the obligations on fixed wireless operators in other bands. There have been no problems with the "substantial service" test in other bands that would justify a stricter standard here.

**C. The Commission Should Further Simplify Its Proposed Coordination Rules.**

The FWCC supports the Commission's tentative decision to adopt wide-area licensing in this band and to eliminate the requirement for individual

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<sup>14</sup> Notice at ¶ 33.

<sup>15</sup> *Id.*



licensing, even for nodal stations.<sup>16</sup> However, the FWCC asks the Commission to clarify its proposed line-of-sight standard for nodal station coordination.

The Commission proposes that licensees coordinate nodal stations with co-channel 24 GHz licensees in adjacent geographic areas, and with adjacent channel 24 GHz licensees in adjacent geographic areas, as well as the same or overlapping areas. Instead of the 80 km coordination distance in the current rules, the Commission proposes mandatory coordination with a nodal facility that has line-of-sight into another licensee's facilities or is within the same geographic area.<sup>17</sup>

The line-of-sight based coordination trigger proposed by the Commission has merit, but the definition of line-of-sight needs further delineation. For example, the Commission should determine over what subscriber terminal altitude line-of-sight applies, and whether to include foliage or man-made obstructions such as buildings.

The FWCC believes a combination of distance, line-of-sight, and power flux density criteria should minimize the instances of coordination. Further study is required to determine which criteria are best for 24 GHz, and to determine specific values for each criterion.

#### **IV. CONCLUSION**

The FWCC fully supports the Commission's effort to open the 24 GHz band to new fixed wireless competitors. In fashioning rules for this band, the Commission should make every effort to ensure that it does not inadvertently

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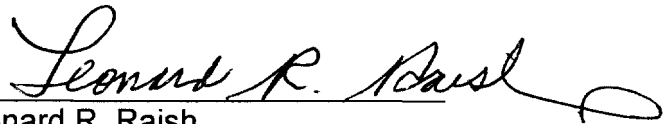
<sup>16</sup> 24 GHz Notice at ¶¶ 38-39.

<sup>17</sup> Id.

adopt rules that disadvantage fixed wireless operators in other bands vis-a-vis 24  
GHz operators or cause needless discrepancies in the Part 101 rules.

Respectfully submitted,

**FIXED WIRELESS  
COMMUNICATIONS COALITION**

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January 19, 2000

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WIRELESS COMMUNICATIONS COALITION**

**USERS**

Association of Public-Safety Communications Officials  
American Mobile Telephone Association  
United Telecom Council (UATC)  
National Association of Broadcasters  
Independent Cable Telecommunications Association  
American Petroleum Institute  
Wireless Communications Association  
Personal Communications Industry Association  
CBS Communications Services  
Norfolk-Southern Railroad  
Union Pacific Railroad  
Burlington-Northern Railroad  
Bell Atlantic  
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People's Choice TV  
Association of American Railroads  
WINSTAR Communications Inc.

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Sierra Digital Communications  
California Microwave, Microwave Data Systems  
Tadiran Microwave Networks  
Spectrapoint Wireless LLC  
Nortel Networks  
P-Com, Inc.  
LUCENT Technologies

## CERTIFICATE OF SERVICE

I, Deborah N. Lunt, a secretary for the law firm of Fletcher, Heald & Hildreth, P.L.C., hereby certify that a true copy of the foregoing "Comments of the Fixed Wireless Communications Coalition" was hand delivered this 19th day of January, 2000, to the following:

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